

### **3. LAND USE CONDITIONS**

#### **3.1 Introduction**

The Florida Keys encompass a group of islands and therefore terrestrial habitats are naturally fragmented. Development has greatly increased the degree of habitat fragmentation mainly by reducing patch size, increasing distances among patches, and in some cases creating barriers to dispersal (Strong and Bancroft 1994). Development in the Florida Keys has occurred primarily in upland areas, resulting in the loss of almost half of the upland habitats, from 20,038 acres in pre-development times to 10,353 acres in 1995 (URS 2002).

Lower Keys islands developed at a slower pace than the Middle and Upper Keys, but many subdivision plats were filed throughout the 1950s and 1960s. As human alteration of the habitat on Big Pine Key and No Name Key progressed, land was set aside for preservation, establishing the National Key Deer Refuge (Refuge) in 1957. Habitat removal and alteration on remaining private lands continued through the 1970s and the population on Big Pine Key and No Name Key increased steadily. A “housing boom” during the late 1970s and early 1980s brought about significant changes in the configuration of native habitat on the islands and the composition of the human community. Presently 15 percent and 4.5 percent of the total landmass of Big Pine Key and No Name Key, respectively, are developed.

This chapter provides an overview of the land use and planning conditions in Big Pine and No Name Key, and focuses on future land use changes that are expected to occur over the next 20 years. The information contained herein provides that basis for the assessment of impacts to protected species and habitat in the project area that are likely to occur as the result of planned urban development in the future. Development occurring within the project area is used to model the amount of “take” that will be permitted under this HCP.

#### **3.2 Land Ownership**

Approximately 69 percent of the land within the project area is in public ownership (Table 3.1; Figure 3.1). The main landowner is the Federal government with 55 percent, all of which is within the Refuge. Federal, state and county agencies purchase and manage lands within the project area for the purpose of environmental protection and conservation. The USFWS owns 52 percent of Big Pine Key and 71 percent of No Name Key. The State of Florida purchases land under the Conservation and Recreation Lands (CARL) program, which is administered by the FDEP. State-owned lands within the project area include the Coupon Bight Aquatic Preserve and Preserve Buffer Lands and lands within the Coupon Bight/Key deer CARL project area, which combined are less than ten percent of the project area. The Monroe County Land Authority (MCLA) purchases a wide variety of vacant lands as directed in the Monroe County Comprehensive Plan and own two percent of the land within the project area.

Table 3.1. Land ownership in the project area as of mid-2002<sup>1</sup>.

	Big Pine Key		No Name Key		Total	
	Acres	%	Acres	%	Acres	%
Federal	3,184	51.8	801	70.8	3,985	54.8
State	856	13.9	50	4.4	906	12.5
County	135	2.2	12	1.0	147	2.0
Private	836	13.6	52	4.6	888	12.2
Developed						
Private	1,134	18.5	217	19.2	1,351	18.5
Undeveloped						
Total	6,145	100.0	1,132	100.0	7,277	100.0

<sup>1</sup> Includes submerged lands.

### **3.3 Habitat Management Activities**

Federal, State and County agencies conduct habitat management activities within the project area. The federal Government, through the National Key Deer Refuge is the main landowner in the study area. The Refuge also manages most of the land within the project area. Management activities include prescribed burning, mowing and clearing of fire breaks, filling of ditches to prevent deer drownings and limit salinity intrusion, habitat restoration and development and protection of habitat corridors. The Refuge is developing a Comprehensive Conservation Plan (CCP), scheduled for completion in 2006. The CCP will outline a vision for the Refuge, guide management decisions, and outline goals, objectives, and strategies to achieve the visions and purposes of the Refuge. Development of the CPP is a requirement of the National Wildlife Refuge System Improvement Act of 1997.

The FDEP Office of Coastal and Aquatic Managed Areas manages state-owned lands within the Coupon Bight Aquatic Preserve and Preserve Buffer (Preserve), whereas the Service manages state-owned lands within the Coupon Bight/Key deer CARL project area under an existing lease agreement. A management plan developed for the Coupon Bight Aquatic Preserve (Florida Department of Natural Resources 1992) states that research and habitat restoration are primary needs for the Preserve. Current management activities include the installation of mooring and warning buoys, seagrass restoration, treatment of coral band disease, and sea turtle nesting beach surveys. Research activities within the Preserve include juvenile fish studies, larval recruitment of the spiny lobster, and studies on the effectiveness of fishing exclusion zones.

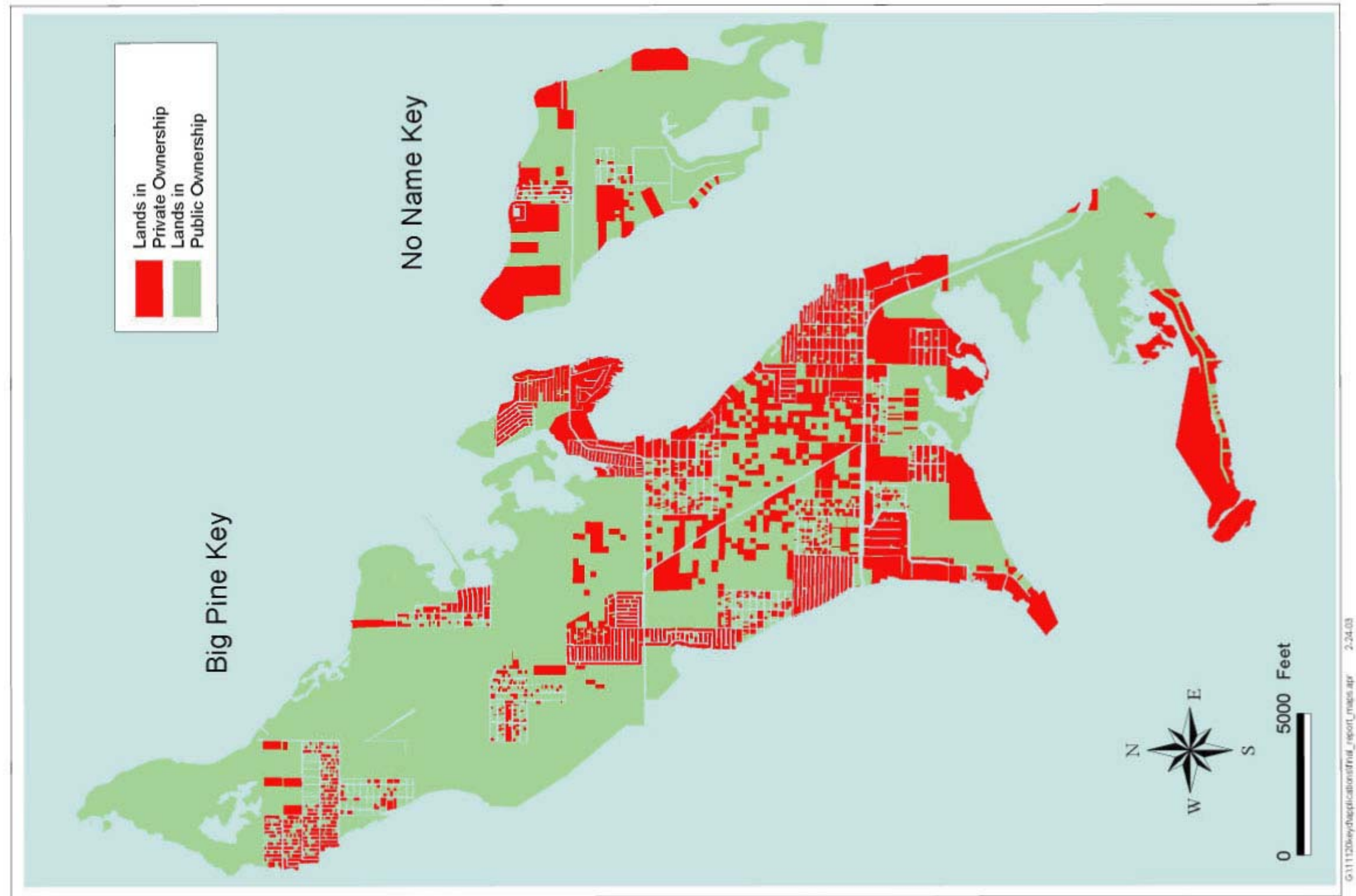


Figure 3.1. Land ownership in the project area

The Monroe County Land Steward is responsible for the management of county-owned public lands within the project area and throughout the Florida Keys. Currently no formal management plan exists for these lands; however, several small habitat restoration and management plans have been developed for individual parcels and subdivisions within the project area. Ongoing management efforts are conducted as needed or when funding becomes available. Primary responsibilities include trash removal, invasive exotic plant control, prescribed burning and other issues related to natural resource management. The Land Steward works in conjunction with the Monroe County Public Works Division, the MCLA, and volunteer groups to implement management activities.

Habitat management of county lands should commence Keys-wide during FY 2002-2003 that begins October 2002, contingent upon funding approval. Larger tracts of land will receive priority for management. These lands are primarily conservation lands acquired through grants from the Florida Communities Trust, for which contract requirements necessitate immediate management. Management of remaining county lands throughout the Keys will be prioritized depending upon several factors including logistics, habitat quality, presence of rare species, and the character of the adjoining lands.

Federal, state and county agencies also work together to jointly manage larger tracts of undeveloped land in which all are landowners. Within the project area this land is primarily pinelands. Management of pineland habitat will be addressed in a Fire Management Plan for Big Pine Key and No Name Key, which is currently being developed by the Lower Keys Wildland Fire Hazard Reduction Initiative. Prescribed burning will be conducted by all three agencies in the project area where there is contiguous pineland habitat. Individual undeveloped lots that cannot be burned because they are between developed properties will be maintained free of solid waste and non-native invasive plants and allowed to grow to hammock vegetation.

### **3.4 Covered Activities**

This HCP addresses the incidental take of protected species that may result from development activities in Big Pine Key and No Name Key in the next 20 years. The types of activities covered under this HCP include residential development, limited commercial development and expansion, expansion of community and institutional facilities, and transportation improvements. This HCP establishes the total amount of impact, expressed in terms of H, over 20 years to be allowed in the execution of the types of activities listed above. Covered activities will comply with the avoidance and minimization guidelines established in this HCP (see Section 5.3). Finally, the Master Plan for Future Development of Big Pine Key and No Name Key, which is being developed in accordance with this HCP, will regulate the amount and extent of each type of covered activity over the next 20 years in the project area.

A key development activity included in this HCP is the widening of US-1 in the developed segment of Big Pine Key. The FDOT may expand US-1 from two to three lanes, to provide a center turn lane in the business district portion of Big Pine Key. The

additional lane would commence near St. Peter's Catholic Church (MM 31.5) and continue through Big Pine Key to the Pine Channel Bridge (MM 29.5). The project would include two separate portions, one east and one west of the recently completed intersection improvement project. This project is necessary to satisfy State of Florida concurrency requirements and therefore to lift the building moratorium in the project area.